



Docket No.: 1071.1044DC

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of:

Takatoshi HIROTA, et al.

Serial No. 10/674,476

Group Art Unit: 2879

Confirmation No. 4672

Filed: October 1, 2003

Examiner: PATEL, ASHOK

For: FLAT DISPLAY DEVICE

**PRE-APPEAL BRIEF**

**Mail Stop AF**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

**I. REQUEST FOR REVIEW**

Applicants respectfully request a review of the rejections in Items 3 and 5 in the Final Office Action mailed June 28, 2005 and further of the Advisory Action mailed December 22, 2005.

**II. FINAL OFFICE ACTION AND RESPONSE**

**STATUS OF CLAIMS**

Claims 6-8 and 16 are allowed.

Claims 9 and 12-14 are rejected.

Claims 10, 11 and 15 are objected to.

**ITEM 3: REJECTION OF CLAIMS 9 AND 12 FOR ANTICIPATION UNDER 35 U.S.C. 102 (B) BY AMEMIYA ET AL.; AND**

**ITEM 5: REJECTION OF CLAIMS 13 AND 14 FOR OBVIOUSNESS UNDER 35 U.S.C. 103(A) OVER AMEMIYA ET AL. IN VIEW OF WADA ET AL.**

In both the Response to the first Office Action and again in the Response to the Final Office Action, Applicants' counsel pointed out that the present invention relates to suppressing

emission of infrared rays from a flat display device, such as a plasma display panel ("PDP"). Particularly, Applicants had determined that such infrared rays can produce malfunctions of nearby infrared-remotely controlled domestic electronic appliances, such as a television set in a home, as an example.

Amemiya et al., a reference supplied by Applicants in an Information Disclosure Statement, merely discloses the use of a "streak camera" and selectable, different filters for correspondingly passing, or blocking, respective different wavebands of light. The experimental procedure disclosed in the reference relates to examining light emitted from different locations as between the anode and cathode of a PDP cell (FIG. 1).

**III. AMEMIYA ET AL. DOES NOT TEACH USE OF AN IR CUT FILTER AS A PART OF A PDP CELL:**

In Amemiya et al., FIG. 2-1 illustrates a streak camera image of a phosphor light component of light emitted by the PDP cell and selectively passed by an IR cut filter, which blocks transmission of the IR light component .

FIG. 2-2 shows a streak camera image of an (Ne) orange light component emitted by the PDP cell and selectively passed by a 625 nm filter.

FIG. 2-3 shows a streak camera image of Xe infrared light, emitted by the PDP cell and selectively passed by a filter with an 810 nm - 830 nm pass band.

FIG. 3 illustrates Xe infrared light distributions emitted by the PDP cell, as a function of electrode length, and particularly for four different electrode lengths.

FIG. 4 illustrates a ratio of phosphor (as in FIG. 2-1) and Xe-infrared luminance (as in FIG. 2-3) relation to electrode length (as in FIG. 3).

The blocking of IR light emissions accordingly is performed only for the experiment illustrated in FIG. 2-1.

FIG. 2-3 and FIG. 3 and the data in FIG. 4 relating to Xe-infrared intensities (from both the cathode and anode areas) relate to images and data processed from those images produced when no IR cut filter is present.

**IV. AMEMIYA ET AL. DOES NOT DISCLOSE THAT THE PDP BEING EXAMINED  
INCORPORATES AN IR CUT FILTER FOR BLOCKING PASSAGE OF INFRARED RADIATION**

In Item 5 of the Office Action mailed June 28, 2005, the Examiner had conceded that:

Amemiya et al. do not disclose the location of the (IR cut filter) material within the device. ...[But]... providing the IR cut filter within the flat panel is known in the art for blocking the undesired rays while emitted desired rays. (insertion added)

Wada et al. was relied upon for teaching use of a filter on a front or rear substrate, or within the substrate material, of a panel. (First Office Action at page 4). However, Wada et al. had no teaching of blocking IR, among other deficiencies.

In the Final Office Action, the Examiner makes clear that he relies not on any teaching of Amemiya et al. of incorporating an IR cut filter in a PDP, but only on his unsubstantiated interpretation of the Amemiya et al. reference as having such a filter. Particularly, the Examiner asserts in the second paragraph at page 5 of the Final Office Action that he:

“intended to state...” in the prior Office Action - - that whereas Amemiya “do not mention as to where the near IR suppressing material (IR-cut filter) is located in Amemiya’s device ... of course it was, and is, the Examiner’s position that the Amemiya device does include the near IR suppressing material (IR-cut filter).”

It is submitted that the Examiner’s assertion of his “position” does not meet the standards for support of a rejection for anticipation under 35 U.S.C. §102(b) by Amemiya et al.

**V. APPLICANTS RESPONSE TO THE FINAL REJECTION DEMONSTRATED  
CONCLUSIVELY THAT THE EXAMINER’S INTERPRETATIONS OF THE AMEMIYA ET AL.  
REFERENCE ARE IN ERROR**

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Applicant provided Exhibits A-F illustrating and explaining the structure and operation of a Streak Camera manufactured by Hamamatsu, a leading manufacturer of such equipment. These Exhibits make explicitly clear that streak cameras incorporate filters providing selective passage of respective, different wavebands, such as those shown in the Figures discussed above of the Amemiya et al. reference. Indeed, the various structures and nature of operation of a streak camera require that the filters be incorporated within the camera. (See Response to Final Rejection pages 4-5).

**VI. INDEPENDENT CLAIMS 9 AND 12 OF THE REJECTED CLAIMS**

The rejection of claims 9 and 12 in Item 3 of the Action is for anticipation under 35 U.S.C. 102(b) by Amemiya et al. - - requiring that every recitation of each rejected claim be found in that reference. That standard clearly is not met.

Claim 9 recites "A flat display device, comprising: a pair of substrates...and a material suppressing said near infrared rays emitted from said gas mixture."

Claim 12 recites likewise "A flat display device, comprising: a display panel...and said display panel having a material suppressing said near infrared rays."

Clearly, each claim requires that the flat display device, itself, comprises, as one component, "a material suppressing said near infrared rays...."

By contrast, as shown above, Amemiya et al. discloses an investigation of light emission from a flat PDP cell, using a "streak camera" which includes selectable filters, such a replaceable IR cut filter. Clearly, the IR cut filter is not a part of the flat PDP panel, but of the streak camera.

**VII. THE ADVISORY ACTION MAILED DECEMBER 22, 2005 REVEALS THE DEFICIENCY OF THE FINAL REJECTION AS WELL AS ASSERTING FURTHER FLAWED CONTENTIONS**

The Examiner asserts in the Advisory Action that the Response to the Final Rejection does not place the application in condition for allowance because:

broad language of at least claims 9 and 12 is encompassed by Amemiya et al. prior art reference.

Indeed an Affidavit submitted with the Response to the Final Office Action received the same treatment:

...Affidavit is considered by the Examiner. However, broader language of at least claims 9 and 12 is encompassed by the Amemiya et al. prior art reference.

(Emphasis added). Nowhere does the Examiner explain his meaning of "broad/broader language."

As is apparent from the foregoing, claims 9 and 12 both require that the flat display device comprises... the "material suppressing said near infrared rays."

Amemiya et al. does not teach that the flat display panel incorporates such a material and, to the contrary, the streak camera has been shown to incorporate selectable filters, among which may be included a near infrared cut filter, within the streak camera structure itself.

**VIII. CONCLUSION**

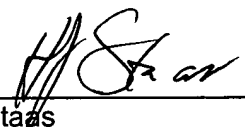
The Final Rejection is without basis and should be withdrawn. The claims patentably distinguish over the art of record and the application should be allowed.

Respectfully submitted,

STAAS & HALSEY LLP

Date: December 28, 2005

By: \_\_\_\_\_

  
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